Investment program contribution system

DESCRIPTION

BACKGROUND OF THE INVENTION

[Para 1]   The present invention relates to an improved savings
contribution system for automatically contributing money to a
savings program upon transacting with a debit, credit, or stored
value card without disrupting the initial purchase activity. This
present invention method is achieved by allowing the debit, credit,
or stored value card transaction to proceed using existing
technology and prior art while using the present invention to initiate
a secondary transaction to transfer money from the individual's
savings, debit, credit, or stored value accounts to the target savings
account.

[Para 2]   All of the embodiments of the present invention are triggered
by an underlying debit, credit, or stored value card transaction,
Unlike prior art, all embodiments of the present invention occur
after all Point of Sale (POS) activity for said underlying transaction is
complete and said underlying transaction is released from all POS
technology and accepted by a debit, credit, or stored value card
clearinghouse system for routing to an issuer of the debit, credit, or
stored value card used in said transaction.

[Para 3]   Unlike prior art, none of the embodiments of the present
invention require additional functionality within the POS
appliance/technology nor are there additional steps in executing
said underlying debit, credit or stored value card transaction that
will subsequently trigger the present invention. This improved

savings contribution system will allow individuals to contribute without disrupting time-sensitive electronic purchase transaction activities or adding the burden to merchant retailers to enhance POS technology, accommodate check-out delays, educate cashiers on additional POS functionality, and provide overall support for the savings program. Also differing from the prior art, the source account(s) of the funds being used for the investment savings contribution could be different from the account used in the underlying transaction triggering the transfer.

[Para 4]   The technology and investment process of the present invention reside within the financial institutions providing the credit, debit, or stored value accounts and/or within the central clearinghouse networks for electronic transaction payments. The existing technology and prior art used by these institutions to route and authorize the underlying transaction will remain intact while the process and technology of the present invention will be added to run a separate service of providing savings contributions. These systems and methods can be run in parallel with the existing transaction or after the transaction is complete in a near-real time or "batch" mode.

DESCRIPTION OF PRIOR ART

[Para 5]   The use of integrated financial network systems is known in the prior art. Integrated financial network systems heretofore devised and utilized consist of familiar, expected and obvious structural configurations, notwithstanding various designs encompassed by the prior art which have been developed for the fulfillment of several objectives and requirements. For the purpose of describing the present invention, Figure 1 illustrates the relevant components of the prior art.

[Para 6]   The present invention substantially departs from the conventional concepts and designs of the prior art, as it does not require additional functionality within the POS appliance/technology nor are there additional steps in executing said underlying debit, credit or stored value card transaction that will subsequently trigger the present invention. Unlike prior art, all embodiments of the present invention occur after the transaction is released from all POS technology and accepted by a debit, credit, or stored value card clearinghouse system for routing to an issuer of the debit, credit, or stored value card used in said transaction.

[Para 7]   All of the embodiments of the present invention are triggered by an underlying debit, credit, or stored value card transaction. Unlike prior art, all embodiments of the present invention occur after all Point of Sale (POS) activity for said underlying transaction is complete and said underlying transaction is released from all POS technology and accepted by a debit, credit, or stored value card clearinghouse system for routing to an issuer of the debit, credit, or stored value card used in said pending transaction. Unlike prior art, none of the embodiments of the present invention require additional functionality within the POS appliance/technology nor are there additional steps in executing said underlying debit, credit or stored value card transaction that will subsequently trigger the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[Para 8]   The present invention relates to an improved savings contribution system for automatically contributing money to a savings program upon making an electronic purchase with a debit, credit, or stored value card.

[Para 9]   The invention has four preferred embodiments to automatically transfer funds of an individual from a savings or a credit account to a pre-determined investment account of the individual comprising:

(1) Saving information of a completed debit, credit, or stored value card transaction and calculating a fund transfer amount based on this information at some future time;

(2) Interrupting a pending debit, credit, or stored value card transaction after all POS activity is complete and the transaction is in the possession of a card clearinghouse system for routing to the card issuer and determining a fund transfer amount based on the interrupted transaction;

(3) Interrupting a pending debit, credit, or stored value card transaction after a card clearinghouse system has routed the pending transaction the card issuer for a transaction authorization and determining the fund transfer amount based on the interrupted transaction; or

(4) Reading a pending debit, credit, or stored value card transaction after all POS activity is complete and the transaction is in the possession of a card clearinghouse system for routing to the card issuer and triggering a separate request for a fund transfer amount and generating a new fund transfer transaction.

[Para 10] The fund transfer amount is determined in the present invention in one of a plurality of modes dependent on pre-determined investment preferences of the individual including, but not limited to:

(1) the fund transfer amount is a percentage of a sale amount of an individual completed debit, credit, or stored value card transaction;

(2) the fund transfer amount is a percentage of an aggregated sale amount of a plurality of completed debit, credit, or stored value card transactions;

(3)   the fund transfer amount is a pre-specified fixed dollar amount for each occurrence of a completed debit, credit, or stored value card transaction;

(4)   the fund transfer amount is based on a calculation of a pre-specified fixed dollar amount and total number of occurrences of a plurality of completed debit, credit, or stored value card transactions;

(5)   the fund transfer amount is a percentage of a sale amount of an individual pending debit, credit, or stored value card transaction in the hands of a clearinghouse or card issuer;

(6)   the fund transfer amount is a pre-specified fixed dollar amount for each individual occurrence of a pending debit, credit, or stored value card transaction in the hands of a clearinghouse or card issuer; or

(7)   The fund transfer amount as a specified dollar amount.

[Para 11] Once a fund transfer amount is determined, the present patent has several methods to execute a transfer of the fund transfer amount from said savings or credit account to said pre-determined investment account including:

(1)   generating an electronic funds transfer from an account listed in the account information of the individual;

(2)   generating a new debit, credit, or smart card transaction against an account specified in the account information; or

(3)   adding the fund transfer amount to a pending debit, credit, or stored value transaction amount before resuming the routing or settlement of said pending transaction.

[Para 12] The present invention provides several methods for managing a fund transfer to said pre-determined investment accounts of an individual including:

(1)   Temporarily accumulating the fund transfer amount in a demand account until a predetermined completion time or accumulation amount is reached;

(2) Ensuring that said fund transfer will not cause a total balance in the investment account to exceed a predetermined investment account limit;

(3) Ensuring that said fund transfer will not exceed a predetermined maximum contribution amount;

(4) Reducing a fund transfer amount if said fund transfer amount will break a contribution or account limit rule after said fund transfer is complete;

(5) If a fund transfer was reduced, transferring said reduction to a secondary investment account;

(6) Allowing the individual to use one or more investment providers;

(7) Transferring said fund transfer amount to a secondary investment account if said transfer to the first investment account fails;

(8) Allowing a third party to contribute additional monies to the fund transfer amount or the investment account; and

(9) Allowing a third party to accumulate points based on said underlying transaction that can be converted using a predetermined conversion formula towards contributing additional monies to the fund transfer amount or the investment account.

[Para 13] The above description is a broad outline of the main features of the invention. Each of these features in the main embodiments will be described in more detail that will form the subject matter of the claims of this invention. The description of the preferred embodiments only serves to illustrate and clarify aspects of the present invention and does not limit other embodiments and claims made.

[Para 14] The present invention allows an individual to automatically transfer funds from a savings or a credit account to a pre-determined investment account of said individual upon making an electronic purchase with a debit, credit, or stored value card. All of the embodiments of the present invention are triggered by an underlying debit, credit, or stored value card transaction.

[Para 15]   The prior art and method of a debit, credit, or stored value card transaction has been illustrated in Figure 1. Step 1 of Figure 1 is where an individual initiates a debit, credit, or stored value card transaction and completes all POS entries. For the purpose of describing the present invention, a debit, credit, or stored value transaction begins when an individual initiates a debit, credit, or stored value card transaction. This can occur at a merchant's POS terminal, an Automated Teller Machine (ATM), a transaction made on the internet, a transaction made over a telephone, or a stored value card reader.

[Para 16]   After all POS entries are compete and no further input is required by either the individual or the POS technology, a pending transaction exists with a transaction amount, a card type, a card account number, a card issuer code, a merchant account number, and a request to authorize the transaction. This pending transaction is released to a Clearinghouse (Step 2). The clearinghouse reads the card issuer information and routes the pending transaction to the card Issuer (Step 3). Once the pending transaction is received, the Card Issuer reads the account number and compares the transaction amount to a fund balance or available line of credit in the card account of the individual. If a sufficient fund or credit balance exists, the transaction is authorized (Step 4). The card issuer sends an authorization decision and subsequent settlement to Clearinghouse (Step 5). The Clearinghouse routes the authorization decision to the POS system and transfers the settlement to an account at a bank of the merchant (Step 6).

[Para 17]   The present invention is designed to allow an individual to automatically transfer funds from a savings or a credit account to a pre-determined investment account of said individual based on the prior method of a debit, credit, or stored value card transaction.

[Para 18]   The first preferred embodiment of the invention does not disrupt the debit, credit, or stored value transaction outlined above.

Under the first preferred embodiment, after all activity of a debit, credit, or stored value transaction is complete, a copy of said completed transaction is saved. The completed transaction could be saved at a multiple of places including at the Clearinghouse (Figure 2A Step 7), at the Card Issuer (Figure 2B Step 7), at the merchant, or by a Third Party receiving completed transaction information from any participants in the underlying transaction (Figure 2C Step 7).

[Para 19] At a future point in time, the saved transaction information is read along with a set of pre-determined investment preference information of the individual (Figure 3A Step 1) to calculate a fund transfer amount. The formula to calculate a fund transfer amount depends on the pre-determined investment preference information of the individual. The fund transfer amount can be a percentage of a sale amount for each completed transaction or a fixed dollar amount for each occurrence of a completed transaction. The fund transfer amount is then determined based on an individual completed debit, credit, or stored value card transaction or an aggregate of said completed transactions (Figure 3A Step 2).

[Para 20] Once the fund transfer amount is determined, a fund transfer transaction is initiated by generating a new debit, credit, or smart card transaction against an account specified in the account information of the individual (Figure 3A Step 3). The transfer can also be carried out by an electronic transfer of funds from a savings or credit account listed in the account information of the individual.

[Para 21] The Clearinghouse routes the newly generated fund transfer transaction to the Card Issuer (Figure 3A Step 4) for authorization and settlement.

[Para 22] The Card Issuer compares the transaction amount to the card account of the individual and transaction is authorized or declined (Figure 3A Step 5). The card issuer sends an authorization decision and subsequent settlement to the Clearinghouse (Figure 3A Step 6).

[Para 23]   The Clearinghouse transfers the fund transfer settlement to an investment account of the individual (Figure 3A Step 7). The fund transfer amount can also be temporarily accumulated in a demand account until a predetermined completion time or accumulation amount is reached prior to transferring monies to an investment account of the individual.

[Para 24]   The first embodiment can also reside in the Card Issuer (Figure 3B). The steps are similar to those of Figure 3A without the need to route the fund transfer transaction (Figure 3A Step 4) or subsequent authorization decision (Figure 3A Step 6) as said pending transaction is generated by the Card Issuer.

[Para 25]   The second preferred embodiment of the present invention does not disrupt the POS activity of the debit, credit, or stored value transaction outlined in Figure 1 Step 1 and Step 2. Under the second preferred embodiment, an individual initiates said transaction and completes all POS entries (Figure 4A Step 1). The POS technology creates a pending transaction with a transaction amount, a card type, a card account number, a card issuer code, a merchant account number, and a request to authorize the transaction. This pending transaction is released to a Clearinghouse (Figure 4A Step 2).

[Para 26]   Once said pending transaction is in the possession of said clearinghouse for routing to a Card Issuer, the routing of the pending transaction is interrupted (Figure 4A Step 3). An account number used in the pending transaction is compared to the saved account information of the individual to determine if two of the said account numbers match (Figure 4A Step 4).

[Para 27]   If a match is found, then a fund transfer amount is calculated (Figure 4A Step 5) based on a set of investment preference information of the individual and the pending transaction information. The method to calculate a fund transfer amount depends on the investment preference information of the individual.

The fund transfer amount can be a percentage of a sale amount of the pending transaction or a fixed dollar amount for each occurrence of a pending transaction.

[Para 28] Once the fund transfer amount is determined, a fund transfer transaction is initiated by generating a new debit, credit, or smart card transaction against an account specified in the account information of the individual (Figure 4A Step 6). The transfer can also be carried out by an electronic transfer of funds from a savings or credit account listed in the account information of the individual. The pending transaction is also resumed.

[Para 29] The Clearinghouse routes the pending transaction and the fund transfer transaction to the Card Issuer (Figure 4A Step 7) for authorization and settlement. The Card Issuer compares each transaction amount to the card account of the individual and each transaction is authorized or declined (Figure 4A Step 8).

[Para 30] The card issuer sends an authorization decision and subsequent settlement to the Clearinghouse for each of the transactions (Figure 4A Step 9).

[Para 31] The clearinghouse routes the authorization decision to the merchant and settlement of the pending transaction to a bank of the merchant (Figure 4A Step 10).

[Para 32] The authorization decision and settlement for the fund transfer transaction are received by the computing system of the invention within the Clearinghouse (Figure 4A Step 11).

[Para 33] The Clearinghouse transfers the fund transfer settlement to an investment account of the individual (Figure 4A Step 12). The fund transfer amount can also be temporarily accumulated in a demand account until a predetermined completion time or accumulation amount is reached prior to transferring monies to an investment account of the individual.

[Para 34]   The third preferred embodiment of the present invention does not disrupt the POS activity of the debit, credit, or stored value transaction outlined in Figure 1 Step 1 and Step 2 nor does it change the clearinghouse activity outlined in Figure 1 Step 3 and Step 6. Under the third preferred embodiment, an individual initiates said transaction and completes all POS entries (Figure 4B Step 1). The POS technology creates a pending transaction with a transaction amount, a card type, a card account number, a card issuer code, a merchant account number, and a request to authorize the transaction. This pending transaction is released to a Clearinghouse (Figure 4B Step 2).

[Para 35]   The clearinghouse reads the card issuer information and routes the pending transaction to the card Issuer (Figure 4B Step 3). Once the pending transaction in the possession of said Card Issuer, the authorization of the pending transaction is interrupted (Figure 4B Step 4). An account number used in the pending transaction is compared to the saved account information of the individual to determine if two of the said account numbers match (Figure 4B Step 5).

[Para 36]   If a match is found, then a fund transfer amount is calculated (Figure 4B Step 6) based on a set of investment preference information of the individual and the pending transaction information. The method to calculate a fund transfer amount depends on the investment preference information of the individual. The fund transfer amount can be a percentage of a sale amount of each pending transaction or a fixed dollar amount for each occurrence of a pending transaction.

[Para 37]   Once the fund transfer amount is determined, a fund transfer transaction is initiated by generating a new debit, credit, or smart card transaction against an account specified in the account information of the individual (Figure 4B Step 7). The transfer can also be carried out by an electronic transfer of funds from a savings

or credit account listed in the account information of the individual. The pending transaction is also resumed.

[Para 38]   The transaction amounts of the pending transaction and the fund transfer transaction are compared to the card account of the individual and each transaction is authorized or declined (Figure 4B Step 8).

[Para 39]   The card issuer sends an authorization decision and subsequent settlement to the Clearinghouse for the pending transaction (Figure 4B Step 9).

[Para 40]   The clearinghouse routes the authorization decision to the merchant and settlement of the pending transaction to a bank of the merchant (Figure 4B Step 10).

[Para 41]   Card Issuer transfers the fund transfer settlement to an investment account of the individual (Figure 4B Step 11). The fund transfer amount can also be temporarily accumulated in a demand account until a predetermined completion time or accumulation amount is reached prior to transferring monies to an investment account of the individual.

[Para 42]   The fourth preferred embodiment of the present invention does not disrupt the POS activity of the debit, credit, or stored value transaction outlined in Figure 1 Steps 1 through 6. Under the fourth preferred embodiment, an individual initiates said transaction and completes all POS entries (Figure 5 Step 1). The POS technology creates a pending transaction with a transaction amount, a card type, a card account number, a card issuer code, a merchant account number, and a request to authorize the transaction. This pending transaction is released to a Clearinghouse (Figure 5 Step 2).

[Para 43]   Once said pending transaction is in the possession of said clearinghouse for routing to a Card Issuer, the pending transaction is read prior to routing to a card issuer (Figure 5 Step 3).

[Para 44]   The clearinghouse reads the card issuer information and routes the pending transaction to the card Issuer (Figure 5 Step 4). Once the pending transaction is received, the Card Issuer reads the account number and compares the transaction amount to a fund balance or available line of credit in the card account of the individual. If a sufficient fund or credit balance exists, the transaction is authorized (Figure 5 Step 5). The card issuer sends an authorization decision and subsequent settlement to Clearinghouse (Figure 5 Step 6). The Clearinghouse routes the authorization decision to the POS system and transfers the settlement to an account at a bank of the merchant (Figure 5 Step 7).

[Para 45]   While the pending transaction is being processed in Figure 5 Steps 1 through 7, an account number used in the pending transaction is compared to the saved account information of the individual to determine if two of the said account numbers match (Figure 5 Step 8).

[Para 46]   If a match is found, then the Computing system initiates a new transaction and prompts individual to enter a fund transfer amount (Figure 5 Step 9). At this prompt, the individual chooses to respond and enters a fund transfer amount (Figure 5 Step 10). The fund transfer amount is sent to the Clearinghouse (Figure 5 Step 11).

[Para 47]   The methods of the present invention (Figure 5 Steps 9 through 11) differ from the prior art as the underlying transaction (Figure 5 Steps 1 through 7) is independent and has been released for authorization. The fund transfer amount is optional and is entered as a separate transaction during the typical delay period experienced while the underlying transaction is being authorized. The current method also differs from the prior art as the fund transfer transaction is separate from the underlying transaction with a separate authorization process that occurs at a future point in time after the underlying transaction is complete.

[Para 48]   At a future point in time, the fund transfer transaction is initiated by generating a new debit, credit, or smart card transaction against an account specified in the account information of the individual (Figure 5 Step 12). The transfer can also be carried out by an electronic transfer of funds from a savings or credit account listed in the account information of the individual. Several fund transfer transactions can accumulate and be sent for authorization at a future point in time.

[Para 49]   The Clearinghouse routes the fund transfer transaction to the Card Issuer (Figure 5 Step 13) for authorization and settlement. This step could also be executed by routing the fund transfer transaction to an account in the account information of the individual other than the account used in the underlying transaction. This step could also be executed by generating an electronic funds transfer from an account listed in the account information of the individual rather than generating a new card transaction.

[Para 50]   The Card Issuer compares each transaction amount to the card account of the individual and each transaction is authorized or declined (Figure 5 Step 14).

[Para 51]   The card issuer sends an authorization decision and subsequent settlement to the Clearinghouse for the fund transfer transaction (Figure 5 Step 15).

[Para 52]   The authorization decision and settlement for the fund transfer transaction are received by the computing system of the invention within the Clearinghouse (Figure 5 Step 16). The Clearinghouse transfers the fund transfer settlement to an investment account of the individual (Figure 5 Step 17). The fund transfer amount can also be temporarily accumulated in a demand account until a predetermined completion time or accumulation amount is reached prior to transferring monies to an investment account of the individual.

[Para 53] All embodiments of the present invention include an ability for an individual to enter and change account information and investment preference information. This information will include debit, credit, or stored value accounts, savings accounts, investment accounts, individual-specific information, investment preferences, rules or limits governing said accounts, account reporting and billing preferences, and other individual information required by the present invention.

[Para 54] All embodiments of the present invention include an ability for the individual to view account balances of total monies in a temporary demand account, a history of completed fund transfer activity, a listing of fees charged, and a history of account activity.

[Para 55] All embodiments of the present invention include an ability for the individual to interact with the present invention via an internet interface, a phone interface, or via a telephone interface.

BRIEF DESCRIPTION OF THE DRAWINGS

[Para 56] Certain embodiments of the present invention have been illustrated to aid in clarifying the methods and articles of manufacture stated within this document:

o   Figure 1: "Prior art and method of a Debit, Credit, or Stored Value card transaction" provides a point of reference for the existing art of a debit, credit, or stored value transaction;

o   Figure 2A: "Capturing Completed Transaction Information at the Clearinghouse" illustrates the first preferred embodiment of saving information of a completed debit, credit, or stored value card transaction at a clearinghouse;

o   Figure 2B: "Capturing Completed Transaction Information at the Card Issuer" illustrates the first preferred embodiment of saving

information of a completed debit, credit, or stored value card transaction at an Issuer of the card used in the said pending transaction;

o   Figure 2C: "Capturing Completed Transaction Information at a Third Party" illustrates the first preferred embodiment of saving information of a completed debit, credit, or stored value card transaction by a third party and fed by several sources;

o   Figure 3A: "Fund Transfer based on Completed Transaction Data at Clearinghouse" illustrates the first preferred embodiment of calculating a fund transfer amount based on a data store of completed debit, credit, or stored value card transaction information at a clearinghouse and generating a new transaction to an account within the individual's saved account information;

o   Figure 3B: "Fund Transfer based on Completed Transaction Data at Card Issuer" illustrates the first preferred embodiment of calculating a fund transfer amount based on a data store of completed debit, credit, or stored value card transaction information at an Issuer of the card used in said pending transaction and generating a new transaction to an account within the individual's saved account information;

o   Figure 4A: "Fund Transfer Based on Interrupting Pending Transaction at the Clearinghouse" illustrates the second preferred embodiment of interrupting a pending debit, credit, or stored value card transaction after all POS activity is complete and the transaction is in the possession of a card clearinghouse system for routing to the card issuer. At this point, a fund transfer amount is determine based on the pending transaction;

o   Figure 4B: "Fund Transfer Based on Interrupting Pending Transaction at the Card Issuer" illustrates the third preferred embodiment of interrupting a pending debit, credit, or stored value card transaction after a card clearinghouse system has routed the pending transaction the card issuer for a transaction authorization and

determining the fund transfer amount based on the interrupted transaction; and

o Figure 5: "Fund Transfer From a Secondary Transaction" illustrates the fourth preferred embodiment of reading a pending debit, credit, or stored value card transaction after all POS activity is complete and the transaction is in the possession of a card clearinghouse system. Here, the pending transaction is not disrupted and a new fund transfer transaction is initiated by prompting the individual to enter a fund transfer amount. The new fund transfer transaction is routed for authorization at some future point in time after the underlying transaction is complete.